

**COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION**

In The Matter Of:

Fluid Recovery Services, LLC	:	
5035 U.S. Route 110	:	Clean Streams Law
Creekside, PA 15732	:	Solid Waste Management Act
	:	Radiation Protection Act

CONSENT ORDER AND AGREEMENT

This Consent Order and Agreement is entered into this 10th day of May, 2013, by and between the Commonwealth of Pennsylvania, Department of Environmental Protection ("Department"), and Fluid Recovery Services, LLC ("FRS").

The Department has found and determined the following:

THE PARTIES

A. The Department is the agency with the duty and authority to administer and enforce The Clean Streams Law, Act of June 22, 1937, P.L. 1987, *as amended*, 35 P.S. §§ 691.1-691.1001 ("Clean Streams Law"); the Pennsylvania Solid Waste Management Act, Act of July 7, 1980, P.L. 380, No. 97, *as amended*, 35 P.S. §§6018.101-6018.1003 ("SWMA"); the Radiation Protection Act, Act of July 10, 1984, P.L. 688, 35 P.S. §§ 7110.101-7131.1101 ("Radiation Protection Act"); Section 1917-A of the Administrative Code of 1929, Act of April 9, 1929, P.L. 177, *as amended*, 71 P.S. § 510-17 ("Administrative Code"); and the rules and regulation ("rules and regulations") promulgated thereunder.

B. FRS is a Delaware Limited Liability Company. FRS is the legal successor in interest to Hart Resource Technologies, Inc. ("Hart") and Pennsylvania Brine Treatment, Inc. ("PBT") as a result of a merger that occurs concurrently on May 9, 2013 with entering this

Consent Order and Agreement. Hart and PBT were Pennsylvania corporations. All assets and liabilities of Hart and PBT have been transferred into FRS by operation of law.

THE FACILITIES

C. Prior to the merger, Hart operated the Creekside Treatment Facility ("Creekside") in Washington Township, Indiana County, PA. PBT owned and operated the Josephine Treatment Facility ("Josephine") in Burrell Township, Indiana County and the Franklin Treatment Facility ("Franklin") in Cranberry Township, Venango County. Each may be referenced as a "Facility." The above facilities are centralized waste treatment ("CWT") facilities. A CWT facility is defined as "any facility that treats (for disposal, recycling or recovery of material) any hazardous or non-hazardous wastes, hazardous or non-hazardous industrial wastewater, and/or used material received from off site." 40 C.F.R. § 437.2(1).

D. Prior to the merger, PBT held an NPDES Permit for the Rouseville Treatment Facility ("Rouseville"), which authorizes a discharge from a CWT facility. PBT, however, has not yet applied for a WQM Permit to construct a CWT facility at this site. The Rouseville site is located in Cornplanter Township, Venango County.

E. As the sole successor of Hart and PBT, FRS has become the operator by lease of Creekside, the owner and operator of Josephine and Franklin (collectively the "Facilities") and the owner of Rouseville.

THE WATER PERMITS

F. On July 29, 2008, the Department issued NPDES Permit No. PA0095443 to Hart authorizing the discharge of treated oil and gas well wastewater from Creekside to McKee Run, a water of the Commonwealth.

G. On March 3, 2000, the Department reissued Water Quality Management (“WQM”) Permit 3284205 to Hart authorizing the construction and operation of the wastewater treatment works at Creekside. WQM Permit 3284205 was originally issued to Hart Chemical Company on May 2, 1985.

H. On June 23, 2008, the Department issued NPDES Permit No. PA0095273 to PBT authorizing the discharge of treated oil and gas well wastewater from Josephine to Blacklick Creek, a water of the Commonwealth.

I. On February 27, 1987, the Department issued WQM Permit 3286201 to Castle Gas Company Incorporated, PBT’s predecessor in interest, authorizing the construction and operation of the wastewater treatment works at Josephine. On March 24, 1992, the Department reissued WQM Permit 3286201 to Castle Gas Company Incorporated. On March 1, 1998, the Department transferred WQM Permit 3286201 to Franklin Brine Treatment Corporation, also PBT’s predecessor in interest, as WQM Permit 3286201 T-1. On August 20, 1999, the Department transferred the permit to Franklin Brine Treatment Corporation as WQM Permit 3286201A-1 T-1. On December 19, 2012, the Department transferred all the above permits to PBT under WQM Permit 3286201A-1 T-2. On January 11, 2013, the Department amended all the above permits and issued them to PBT under WQM Permit 3286201A-2 T-2. For purposes of this Consent Order and Agreement, all the permits referenced in this finding shall be referred to as “WQM Permit 3286201A-2 T-2.”

J. On February 27, 2009, the Department issued NPDES Permit No. PA0101508 to PBT authorizing the discharge of treated oil and gas well wastewater from Franklin to the Allegheny River, a water of the Commonwealth.

K. On October 23, 2009, the Department transferred WQM Permit 6182201-T3 to PBT authorizing the construction and operation of the wastewater treatment works at Franklin.

L. In May 1983, the Department issued Water Obstruction & Encroachment Permit E61-049 to Cabot Oil and Gas Corporation, PBT's predecessor in interest, for the construction of the outfall pipe from the CWT facility at Franklin to the Allegheny River. On March 16, 2004, the Department transferred the permit to PBT.

M. On December 9, 2010, the Department issued NPDES Permit No. PA0263516 to PBT authorizing the discharge of treated oil and gas well wastewater from Rouseville to Oil Creek, a water of the Commonwealth. PBT has not applied for a WQM Permit for Rouseville.

N. For purposes of this Consent Order and Agreement, the term "unconventional oil and gas" shall mean oil and gas from geological shale formations existing below the base of the Elk Sandstone or its geologic equivalent stratigraphic interval where oil and/or natural gas generally cannot be produced at economic flow rates or in economic volumes except by vertical or horizontal well bores stimulated by hydraulic fracture treatments or by using multilateral well bores or other techniques to expose more of the formation to the well bore.

O. For purposes of this Consent Order and Agreement, the term "conventional oil and gas" shall mean oil and gas that is not "unconventional oil and gas" as defined in Paragraph N, above.

P. Hart and PBT have voluntarily not accepted unconventional oil and gas wastewater for treatment at the Facilities since September 30, 2011, after former Department Secretary Krancer issued a press release in which he requested Marcellus Shale (an unconventional oil and gas formation) oil and gas well operators not to transport wastewater to facilities exempt from the total dissolved solids (TDS) treatment requirements in 25 Pa. Code

§ 95.10. Subsequently in July and August of 2011, Marcellus Shale oil and gas well operators were asked by the Department to certify in writing that they were not taking flowback and produced water from shale gas extraction to these facilities. Franklin, Josephine and Creekside were included in the list of facilities exempted from the TDS treatment requirements. Hart and PBT have continued to accept conventional oil and gas well wastewater.

WASTE PERMITS

Q. Pursuant to Section 287.102 of the Department's rules and regulations, 25 Pa. Code § 287.102, an operator may be deemed to have a residual waste processing permit for a wastewater treatment facility under the conditions specified therein, known as a "Permit by Rule." On December 7, 1993, the Department acknowledged that Hart had coverage under a Permit by Rule for Creekside. On November 9, 2010, PBT notified the Department that Josephine was operating under a Permit by Rule. On March 1, 1993, the Department acknowledged receipt of a Permit by Rule notification for Franklin. On December 11, 2009, the Department acknowledged that PBT has coverage under a Permit by Rule for Rouseville.

RADIATION CONTAMINATION

Josephine

R. On July 28, 2011, the Department collected sediment samples at the discharge from PBT's Josephine Facility and downstream of the PBT discharge in Blacklick Creek. Radium-226 and radium-228 were detected in the sample analytical results at levels greater than 5 pCi/g above background. This standard is based upon a guidance document issued by the U.S. Environmental Protection Agency ("EPA").

S. In the summer of 2012, Hart and PBT voluntarily investigated, *inter alia*, the presence of radium-226 and radium-228 in Blacklick Creek downstream of Josephine. The

investigation found concentrations of radium isotopes at levels greater than 5 pCi/g above background in the stream bed and stream banks of Blacklick Creek, downstream of Josephine, to a distance approximately 500 feet downstream of PBT's Josephine discharge pipe. Attached hereto and incorporated by reference as Exhibit A is Figure 6.1 of a "Radiological Assessment of Blacklick Creek Site" prepared on behalf of Hart and PBT by Integrated Environmental Management, Inc. dated July 28, 2012. Figure 6.1 is a photograph depicting the locations of samples of sediment taken by Hart and PBT in the vicinity of Josephine. The presence of radium-226 and radium-228 at levels greater than 5 pCi/g above background is a result of the past discharges from the Josephine Facility. The direct radiation levels from the sediments pose no immediate exposure risk to the general public passing by the stream, or to employees of the facility.

T. There is a white precipitate or coating of the stream bed of Blacklick Creek downstream of the Josephine discharge pipe. This precipitate was caused by past discharges from the Josephine Facility.

Franklin

U. In the fall of 2012, Hart and PBT voluntarily investigated, *inter alia*, the presence of radiation in the Allegheny River downstream of Franklin. The investigation found concentrations of radium-226 and radium-228 in the stream bed and stream banks of the Allegheny River at levels greater than 5 pCi/g above background, downstream of Franklin, to a distance approximately 40 feet downstream of PBT's Franklin discharge pipe. Attached hereto and incorporated by reference as Exhibit B is Figure 6.1 of a "Radiological Assessment of Franklin Site" prepared on behalf of Hart and PBT by Integrated Environmental Management, Inc., dated October 24, 2012. Figure 6.1 is a photograph depicting the locations of such samples

of sediment taken by Hart and PBT in the vicinity of Franklin. The presence of radium-226 and radium-228 at levels greater than 5 pCi/g above background is a result of the past discharges from the Franklin Facility. The direct radiation levels from the sediments pose no immediate exposure risk to the general public passing by the stream, or to employees of the facility.

Creekside

V. In the fall of 2012, Hart and PBT voluntarily investigated, *inter alia*, the presence of radiation in McKee Run downstream of Creekside. Levels of radium were found in the stream and below the discharge point of the Creekside Facility above background levels and are a result of the discharges from the Creekside Facility. The investigation has been deemed inconclusive as to whether concentrations of radium isotopes in the stream bed and stream banks of McKee Run were greater than 5 pCi/g above background concentrations.

Complete Characterization Needed

W. A further and complete characterizations of the presence of radium isotopes must be completed at Creekside to determine whether total radium is present in the sediment of McKee Run greater than 5 pCi/g above background.

NPDES PERMIT CONDITIONS AND AUTHORIZATIONS

X. The NPDES Permit applications submitted by Hart and PBT for Creekside, Josephine and Franklin did not include analytical results for radium isotopes.

Y. Each NPDES Permit for Creekside, Josephine and Franklin contains a condition that states, "[A]ll discharges of . . . substances which . . . settle to form deposits shall be controlled to levels which will not be inimical or harmful to the water uses to be protected or to human, animal, plant or aquatic life."

Z. Section 93.6 of the Department's rules and regulations prohibits the discharge of substances which are "inimical or harmful to the water uses to be protected or to human, animal, plant or aquatic life." 25 Pa. Code § 93.6.

AA. The NPDES Permits for Creekside, Josephine and Franklin did not authorize the discharge of radium-226 or radium-228, nor authorize those parameters to be discharged and deposited in a stream bed or along a stream bank.

AB. Hart and PBT's past discharges of industrial waste from the Facilities containing radium isotopes did not comply with the foregoing provisions of NPDES Permit No. PA0095273, NPDES Permit No. PA0101508, and NPDES Permit No. PA0095443, respectively, as well as Section 93.6 of the rules and regulations, 25 Pa. Code § 93.6, and Sections 301, 307 and 401 of the Clean Streams Law, 35 P.S. §§ 691.301, 691.307 and 691.401; and constitute a nuisance under Sections 3, 307, 401 and 402, 35 P.S. §§ 691.3, 691.307, 691.401 and 691.402; and constitute unlawful conduct under Section 611 of the Clean Streams Law, 35 P.S. § 691.611.

FUTURE ACTIONS

AC. Under this Consent Order and Agreement, FRS agrees not to discharge wastewater from unconventional oil and gas wells until such time as it obtains the necessary Department permits and implements the use of technologies at each Facility that would enable it to treat such wastewater to a level of Total Dissolved Solids ("TDS") not to exceed a monthly average of 500 mg/l ("Permanent Treatment").

AD. FRS is authorized to discharge at its Facilities treated wastewater from conventional oil and gas formations, subject to compliance with all applicable laws, permits, rules and regulations.

AE. Until Permanent Treatment is implemented as described in Paragraph AC, above, FRS may accept and process wastewater from unconventional oil and gas wells for recycle and reuse, provided it first obtains and then complies with a PADEP Waste Management General Permit for the Processing and Beneficial Use of Oil and Gas Liquid Waste ("WGMR 123") for each facility at which such processing is to occur.

AF. Until such time that FRS can finance, permit and construct Permanent Treatment, it has installed or plans to install certain interim measures. The interim measures already installed at Josephine are listed in Exhibit C-1. The proposed interim measures for Josephine are listed in Exhibit C-2. The interim measures proposed to be installed for Franklin are set forth in Exhibit C-3. An interim measure installed at Creekside is set forth in Exhibit C-4. Exhibits C-1, C-2, C-3 and C-4 are attached hereto and incorporated by reference.

AG. Issued concurrently with this Consent Order and Agreement are two Consent Agreements and Final Orders ("CAFOs") at EPA Docket No. CWA-03-2013-0049 between EPA and Hart and EPA Docket No. CWA-03-2013-0050 between EPA and PBT that resolve civil and administrative penalty liability for certain violations of the Clean Water Act, 33 U.S.C. §§ 1251, *et seq.* Also issued concurrently with this Consent Order and Agreement is an Administrative Order for Compliance on Consent ("AOCC") at EPA Docket No. CWA-03-2013-0051DN between EPA and Respondents, requiring, *inter alia*, the FRS to comply with the conditions described in Paragraphs AC and AE, above.

AH. The Department considered the terms of the CAFOs and AOCC and the resolution of EPA's claims for liability in entering into this Consent Order and Agreement.

AI. Upon the merger of Hart and PBT into FRS, scheduled to occur concurrently with the execution of this Consent Order and Agreement, the Department intends to transfer all Water Permits held by Hart and PBT to FRS.

After full and complete negotiation of all matters set forth in this Consent Order and Agreement and upon mutual exchange of covenants contained herein, the parties desiring to avoid litigation and intending to be legally bound, it is hereby ORDERED by the Department and AGREED to by FRS as follows:

1. Authority. This Consent Order and Agreement is an Order of the Department authorized and issued pursuant to Sections 5, 316, 402 and 610 of the Clean Streams Law, 35 P.S. §§ 691.5, 691.316, 691.402, and 691.610; Section 602 of the Solid Waste Management Act, 35 P.S. § 6018.602; Section 309(b) of the Radiation Protection Act, 35 P.S. § 7110.309(b); and Section 1917-A of the Administrative Code, 71 P.S. § 510-17.

2. Findings.

a. FRS agrees that the findings in Paragraph A through Z and AC through AI are true and correct and, in any matter or proceeding involving FRS and the Department, FRS shall not challenge the accuracy or validity of these findings.

b. The parties do not authorize any other persons to use the findings in this Consent Order and Agreement in any matter or proceeding.

PERMIT TRANSFERS

3. Immediately upon the execution of this Consent Order and Agreement, the Department intends to transfer the following permits to FRS:

a. NPDES Permit No. PA0095443 authorizing the discharge of treated oil and gas well wastewater from Creekside.

- b. WQM Permit 3284205 authorizing the construction and operation of the wastewater treatment works at Creekside.
 - c. NPDES Permit No. PA0095273 authorizing the discharge of treated oil and gas well wastewater from Josephine.
 - d. WQM Permit 3286201A-2 T-2 authorizing the construction and operation of the wastewater treatment works at the Josephine.
 - e. NPDES Permit No. PA0101508 authorizing the discharge of treated oil and gas well wastewater from Franklin.
 - f. WQM Permit 6182201-T3 authorizing the construction and operation of the wastewater treatment works at Franklin.
 - g. Water Obstruction & Encroachment Permit E61-049 for the construction of the outfall pipe from the CWT facility at Franklin to the Allegheny River.
 - h. NPDES Permit No. PA 0263516 authorizing the discharge of treated oil and gas well wastewater from Rouseville.
4. Also upon the execution of this Consent Order and Agreement, the Department intends to issue a written acknowledgement of the Department's receipt of Permit By Rule coverage from FRS for Creekside, Franklin, Rouseville and Josephine, and that these facilities are subject to the Permit By Rule.

PERMIT APPLICATIONS

Water Permits

5. FRS shall apply to the Department for timely renewal of the NPDES Permit at each of the Facilities. FRS waives its right to appeal any effluent limitation for TDS equal or greater than a monthly average of 500 mg/L contained in any such renewed NPDES Permit. In

addition, FRS shall apply to the Department for WQM Permits and any other applicable permits for the construction of new treatment equipment utilizing technologies designed to achieve the TDS effluent limit of any renewed NPDES Permit. Complete applications shall be submitted to the Department according to the following schedule:

- a. For the Josephine Facility:
 - i. On or before May 15, 2013, for the NPDES Permit Renewal; and
 - ii. For the WQM Permit and any other applicable permit for the construction of Permanent Treatment, within three (3) months after the Department has published a draft NPDES Permit Renewal.
- b. For the Creekside Facility:
 - i. On or before May 31, 2013, for the NPDES Permit Renewal; and
 - ii. For the WQM Permit and any other applicable permit for the construction of Permanent Treatment, within three (3) months after the Department has published a draft NPDES Permit Renewal.
- c. For the Franklin Facility:
 - i. On or before August 28, 2013, for the NPDES Permit Renewal; and

- ii. For the WQM Permit and any other applicable permit for the construction of Permanent Treatment, within three (3) months after the Department has published a draft NPDES Permit Renewal.

d. Within a reasonable time of the Department's post-construction certification acceptance of the WQM Permit for a Facility, the Department intends to send a letter to FRS acknowledging that such Facility may accept, treat and discharge unconventional

oil and gas wastewater in accordance with all applicable permits and all applicable laws. A sample of this letter is attached as Exhibit D.

6. FRS' applications for all NPDES Permit renewals and WQM Permits and WQM Permit revisions at each of the Facilities shall comply with the requirements of the Clean Streams Law and the regulations promulgated thereunder.

7. FRS agrees that discharges from the Facilities will be considered "new and expanding mass loads" as defined in 25 Pa. Code § 95.10, with respect to effluent limits for the constituents set forth in 25 Pa. Code § 95.103(b)(3) when the Department renews the Facilities' NPDES Permit.

8. Within 12 months of the date of issuance of the applicable WQM Permit for Permanent Treatment, FRS shall install and operate the water treatment equipment authorized by the WQM Permits. FRS shall ensure that the discharges from such water treatment equipment will comply with all applicable requirements including treating the discharge so as not to exceed a monthly average of 500 mg/L for TDS or as otherwise required by law.

Waste Permits

9. a. FRS shall submit registration applications for a WMGR123 permit for any Facility at which FRS wishes to accept wastewater from unconventional oil and gas extraction activities for recycle or reuse, and shall not process such material unless and until such registrations are issued by the Department and the terms and conditions thereof are complied with by FRS.

b. Within a reasonable time of issuance of each WMGR123 permit for the Facilities, if such issuance occurs, the Department intends to send a letter to FRS acknowledging that such WMGR123 permitted facility may accept and treat unconventional oil and gas well

wastewater in accordance with the terms of such permit, and all other applicable permits and laws. A sample of this letter is attached as Exhibit E.

INTERIM MEASURES

10. FRS shall not discharge from any Facility wastewater from unconventional oil and gas extraction activities, until the Department has issued, and FRS is in full compliance with, WQM Permits and renewed NPDES Permits at such Facility containing effluent limitations for TDS not to exceed a monthly average of 500 mg/L and all other requirements of this Consent Order and Agreement. FRS is authorized to discharge at its Facilities treated wastewater from conventional oil and gas during the Interim Period subject to compliance with all applicable laws, permits, rules and regulations.

Josephine

11. a. Within 45 days from the execution of this Consent Order and Agreement, FRS shall submit an application to amend WQM Permit 3286201 for Josephine. The application shall fully describe the interim measures already installed as listed in Exhibit C-1 and proposed installation, operation and maintenance of interim measures listed in Exhibit C-2. The application shall also include a description of all existing wastewater treatment units as of the date of application. In addition, FRS shall include a Design Engineer's Report with the application providing the technical basis for the achievement of a discharge from the Facility with concentrations of radium-226 equal to or less than 5 pCi/L as a monthly average (collectively referred to as "Interim Measures"). Furthermore, FRS shall include the technical basis for all revisions made to the wastewater treatment facilities since the acquisition of the Facility by PBT.

b. Within 30 days of the issuance of revised WQM Permit 3286201 for interim measures at Josephine, FRS shall complete installation and implementation of Interim Measures at Josephine.

Franklin

12. a. Within 75 days from the execution of this Consent Order and Agreement, FRS shall submit an application to amend WQM Permit 6182201-T3 for Franklin. The application shall fully describe the installation, operation and maintenance of Interim Measures (set forth in Exhibit C-3). The application shall also include a description of all existing wastewater treatment units as of the date of application. In addition, FRS shall include a Design Engineer's Report with the application providing the technical basis for the achievement of a discharge from the Facility with a radium-226 concentration equal to or less than 5 pCi/L as a monthly average. Furthermore, FRS shall include the technical basis for all revisions made to the wastewater treatment facilities since the last WQM Permit for the Facility was issued in September 2010.

b. Within sixty (60) days of the issuance of revised WQM Permit 6182201-T3 for interim measures at Franklin, FRS shall complete installation and initiate operation of Interim Measures at Franklin.

Creekside

13. Within 60 days from the execution of this Consent Order and Agreement, FRS shall submit an application to revise WQM Permit 3284205 for Creekside. The application shall fully describe the installation, operation and maintenance of the Interim Measure (set forth in Exhibit C-4). The application shall also include a description of all existing wastewater treatment units as of the date of the application. In addition, FRS shall include a Design

Engineer's Report with the application providing the technical basis for the achievement of a discharge from the Facility with a radium-226 concentration equal to or less than 5 pCi/L as a monthly average. Furthermore, FRS shall include the technical basis for all revisions made to the wastewater treatment facilities since the date of original construction.

Interim Period

14. For purposes of this Consent Order and Agreement, the "Interim Period" for each facility shall be as follows:

a. For Josephine, from the date 30 days after the issuance of amended WQM Permit 3286201, until the time for operation of Permanent Treatment set forth in Paragraph 8 of this Consent Order and Agreement.

b. For Franklin, from the date 60 days after the issuance of amended WQM Permit 6182201-T3 until the time for operation of Permanent Treatment set forth in Paragraph 8 of this Consent Order and Agreement.

c. For Creekside, within 90 days from the date of execution of this Consent Order and Agreement until the time for operation of Permanent Treatment set forth in Paragraph 8 of this Consent Order and Agreement.

15. During the applicable Interim Period for each Facility, FRS shall:

a. not discharge wastewater with concentrations of radium-226 at concentrations higher than 5 pCi/L as a monthly average and 10 pCi/L as a daily maximum;

b. collect and analyze 8 hour composite samples on a weekly basis of each discharge for radium-226, barium and total suspended solids, unless and until any NPDES permit for the Facility requires 24 hour composite sampling, in which case FRS shall collect and analyze 24 hour composite samples;

c. collect and analyze 8 hour composite samples on a weekly basis for radium-228 using EPA Test Method 904.0, unless and until any NPDES permit for the Facility requires 24 hour composite sampling, in which case FRS shall collect and analyze 24 hour composite samples; and

d. submit a supplemental report to the Department of the analytical results of such samples with the monthly Discharge Monitoring Report for each Facility.

16. a. During the Interim Period for each Facility, if FRS exceeds the monthly average concentration limits of 5 pCi/l for radium-226 in the discharge of any Facility, FRS shall within thirty (30) days of receipt of information showing such exceedance, submit to the Department an explanation of the cause of such exceedance and the measures that FRS will take to avoid such exceedance in the future ("Exceedance Report"). The Department may review and provide comments to the Exceedance Report. FRS shall make modifications to the Exceedance Report required by the Department. Upon approval of the corrective measures set forth in the Exceedance Report, FRS shall implement such measures as soon as feasible. FRS will obtain all necessary Department permits for the installation, modification or addition of any necessary treatment works to prevent such recurrence, and shall install and operate such treatment works as soon as feasible.

b. Ninety (90) days after the start of the Interim Period, if FRS exceeds the daily maximum concentration limit of 10 pCi/l for radium-226 in the discharge at any Facility four times in any consecutive twelve (12) month period, FRS shall within thirty (30) days of receipt of information showing such exceedance submit to the Department an Exceedance Report as set forth in Paragraph 16.a., above. The Department may review and provide comments on the Exceedance Report. FRS shall make modifications to the Exceedance Report required by the

Department. Upon approval of the corrective measures set forth in the Exceedence Report, FRS shall implement such measures. Respondents will obtain all necessary Departmental permits for the installation, modification or addition of any necessary treatment works to prevent such recurrence, and shall install and operate such treatment works, as soon as feasible.

REMEDICATION OF CURRENT RADIOLOGICAL CONTAMINATION

17. FRS shall remediate the stream bed and stream bank downstream of Josephine and Franklin so that total radium levels do not exceed 5 pCi/g above background. Also downstream of both Facilities, FRS shall remove from the stream bed and stream bank all soil, stones and sediment that have visible impacted deposition from the discharge from each Facility. FRS shall conduct the remediation in accordance with the following schedule and shall complete remediation activities within three years of the date of execution of this Consent Order and Agreement:

- a. For Josephine:
 - i. On or before September 15, 2013, submit to the Department for review and approval a Remedial Plan and Schedule designed to achieve the remediation set forth in this paragraph.
 - ii. Within thirty (30) days of the Department's approval of the Remedial Plan, submit to the Department and other governmental agencies for review and approval all necessary permit applications to conduct the remediation set forth in this paragraph.
 - iii. After receipt of all necessary plan approvals and Permits, initiate the remediation, including confirmatory sampling as soon as stream flows are low enough to make remediation practicable.

iv. FRS shall coordinate the confirmatory sampling required by the Remedial Plan with the Department. FRS shall provide ten (10) days notification to the Department of the date for confirmatory sampling.

v. Within sixty (60) days of completing the Remedial Plan, submit to the Department for review and approval a Final Report summarizing all sample analyses and detailing the measures taken to achieve remediation set forth in this paragraph.

vi. Upon approval of a Final Report, the Department will issue a letter to FRS indicating the Department's conclusions regarding the remediation. In the event the Department determines from any confirmatory sampling or Final Report that remediation has achieved the standards of this paragraph, the Department intends to issue a letter as set forth in Exhibit F.

b. For Franklin:

i. On or before November 15, 2013, submit to the Department for review and approval a Remedial Plan and Schedule designed to achieve the remediation set forth in this paragraph. Such remedial Plan and Schedule shall include a proposal to complete additional delineation of sediment contamination downstream of the Franklin Facility.

ii. Within thirty (30) days of the Department's approval of the Remedial Plan and Schedule, submit to the Department and other governmental agencies for review and approval all necessary permit applications to conduct the remediation set forth in this paragraph.

iii. After receipt of all necessary approvals and Department Permits,

initiate the remediation as soon as stream flows are low enough to make remediation practicable.

iv. FRS shall coordinate confirmatory sampling required by the Remedial Plan and Schedule with the Department. FRS shall provide ten (10) days notification to the Department of the date for confirmatory sampling.

v. Within sixty (60) days of completing the Remedial Plan, submit to the Department for review and approval a Final Report summarizing all sample analyses and detailing the measures taken to achieve remediation set forth in this paragraph.

vi. Upon approval of a Final Report, the Department will issue a letter to FRS indicating the Department's conclusions regarding the remediation. In the event the Department determines from any confirmatory sampling or the Final Report that remediation has achieved the standards set forth in this paragraph, the Department intends to issue a letter as set forth in Exhibit F.

c. FRS shall reimburse the Department for time spent by three staff members for up to five days for each Facility, including time spent traveling to and from such Facility, in conducting on-site confirmatory sampling, for each of the Josephine, Franklin, and if necessary, Creekside Facilities, at a rate of \$150.00 per hour per person, including overhead costs, and the Department's sampling costs of \$100.00 per sample, and for each necessary return visit to each Facility to verify adequate remediation. FRS shall reimburse the Department within thirty (30) days of receipt of a request for reimbursement, unless FRS requests dispute resolution procedures pursuant to Paragraph 37, below.

18. a. Within ninety (90) days of execution of this Consent Order and Agreement, FRS shall submit to the Department for review and approval a plan to determine whether total radium in sediment downstream of Creekside in McKee Run exceeds 5 pCi/g above background ("Creekside Background Determination Plan").

b. Upon Department approval of the Creekside Background Determination Plan, FRS shall complete all sampling under the plan. In the event the sample analytical results conducted as part of the Creekside Background Determination Plan show the presence of total radium in concentrations equal to or below 5 pCi/g above background, the Department intends to issue a letter as set forth in Exhibit F. In the event the sample analytical results conducted as part of the Creekside Background Determination Plan shows the presence of total radium in concentrations in excess of 5 pCi/g above background, FRS shall submit to the Department for review and approval a Remedial Plan and Schedule designed to remediate the contaminated sediments to a concentration of total radium equal to or below 5 pCi/g above background within three years of the execution of this Consent Order and Agreement.

c. Upon the Department's approval of the Remedial Plan and Schedule, FRS shall complete the tasks of such plan in accordance with the approved schedule and shall submit to the Department for review and approval a Final Report demonstrating that the Remedial Plan successfully reduced the concentration of the contaminated sediments to a concentration of total radium equal to or below 5 pCi/g above background.

d. FRS shall coordinate confirmatory sampling required by the Remedial Plan with the Department. FRS shall provide ten (10) days notification to the Department of the date for confirmatory sampling.

e. Upon approval of a Final Report, the Department will issue a letter to FRS indicating the Department's conclusions regarding the remediation. In the event the Department determines from any confirmatory sampling or the Final Report that remediation has achieved the standards set forth in this paragraph, the Department intends to issue a letter as set forth in Exhibit F.

19. **Post-remedial Sampling.**

a. Within thirty (30) days after FRS has received from the Department a letter as set forth in Exhibit F for any of the Facilities, FRS shall also submit to the Department for review and approval a proposal to sample sediment to determine whether the sediment in the stream bed and stream bank downstream have become re-contaminated with radium isotopes ("Sediment Sampling Plan").

b. As part of each Sediment Sampling Plan, until Permanent Treatment at each Facility becomes operational, FRS shall implement such plan and conduct sampling in each stream bed and stream bank two times per twelve (12) month period. Each sampling event shall not be closer than three months apart.

c. After Permanent Treatment is installed and operational, as part of the Sediment Sampling Plan for each Facility, FRS shall conduct sampling in each stream bed and stream bank under the Sediment Sampling Plan at least twice in the following twelve (12) months at each Facility. Each sampling event shall not be closer than three months apart.

d. In the event the sample analytical results conducted as part of the Sediment Sampling Plan demonstrate that total radium exceeds 5 pCi/g of total radium over background, FRS shall immediately cease the discharge from such Facility and submit to the Department a report explaining the cause of the exceedence and a characterization plan designed

to define the extent and amount of radium in the sediments ("Characterization Plan"). FRS shall complete the tasks in the approved Characterization Plan as soon as stream flows are low enough to make a remediation practicable.

e. Upon the Department's approval of the Characterization Plan and FRS' completion of the tasks set forth in such plan, FRS shall submit to the Department for review and approval a Remedial Plan and schedule designed to remediate the contaminated sediments to a concentration of total radium equal to or below 5 pCi/g above background.

f. Upon the Department's approval of a Remedial Plan and schedule, FRS shall complete the tasks of such plan in accordance with the approved schedule and within sixty (60) days of completing the Remedial Plan shall submit to the Department for review and approval a Final Report demonstrating that the Remedial Plan successfully reduced the concentration of total radium to equal to or below 5 pCi/g above background. FRS shall reimburse the Department for its staff and consultants' time spent in conducting on-site confirmatory sampling, as set forth in Paragraph 17.c.

g. FRS may only resume a discharge from the Facility after the Permanent Treatment is operational at the Facility or the Department reviews and approves the Final Report and is satisfied that such contamination of the sediments is unlikely to recur, whichever is earlier. FRS will obtain all necessary Departmental permits for the installation, modification or addition of any necessary treatment works to prevent such recurrence, and shall install and operate such treatment works, prior to resuming the discharge.

20. a. After remediation and prior to the implementation of Permanent Treatment at each Facility and in the event that FRS is required to submit to the Department an Exceedence Report pursuant to Paragraph 16.a or 16.b, it shall also submit to the Department for

review and approval a proposal to sample sediment in the stream as soon as feasible to determine whether the sediment in the stream bed and stream bank downstream of the Facility have become contaminated with radium isotopes ("Sediment Sampling Plan").

b. FRS shall implement the Sediment Sampling Plan as approved by the Department as soon as feasible and conduct sampling in the stream bed and stream bank at and below the discharge at the Facility. In the event that the samples of sediment exceed 5 pCi/g over background for total radium, FRS shall immediately cease the discharge from such Facility, and comply with the requirements set forth in Paragraph 19.d through 19.g to ensure that the stream is not further contaminated, and is remediated to meet a standard of equal to or below 5 pCi/g over background for total radium. FRS shall demonstrate that this standard has been attained within twelve (12) months of approval of the Sediment Sampling Plan.

21. Additional Information. If the Department requires additional information to review any submission required by this Consent Order and Agreement, FRS shall provide the requested information within the time set forth in the Department's notice, which time shall be reasonable.

22. Progress Reports. Beginning with the first full quarter following execution of this Consent Order and Agreement, and continuing until all activities required by the Consent Order and Agreement have been accomplished, FRS shall submit a combined quarterly progress report covering Josephine, Franklin and Creekside to the Department. These reports shall be submitted thirty (30) days after the end of each calendar quarter and shall include at a minimum for the previous quarter:

a. A description of the actions that have been taken during that quarter toward achieving compliance with the Consent Order and Agreement;

b. All sampling and analytical data required for that quarter by the Consent Order and Agreement;

c. A description of all activities including adjustments to the treatment process scheduled for the next quarter; and,

d. A description of any problems or delays encountered in the performance of the activities required by this Consent Order and Agreement.

23. Stipulated Civil Penalties.

a. In the event FRS fails to comply in a timely manner with any term or provisions of this Consent Order and Agreement, FRS shall be in violation of this Consent Order and Agreement and, in addition to other applicable remedies, shall pay a civil penalty in the amount of Six Hundred Twenty-Five Dollars (\$625.00) per day for each violation.

b. During the Interim Period for each Facility, any time FRS discharges wastewater with a daily maximum concentration for radium-226 greater than 10 pCi/L, it shall pay a civil penalty in the amount of Nine Hundred Dollars (\$900.00) for each exceedance.

c. During the Interim Period for each Facility, any time FRS discharges wastewater with a monthly average concentration for radium-226 greater than 5 pCi/L, it shall pay a civil penalty in the amount of Two Thousand Five Hundred Fifty Dollars (\$2550.00) for each exceedance.

d. Stipulated civil penalty payments shall be payable monthly on or before the thirtieth day of each succeeding month, and shall be made by corporate check or the like payable to Commonwealth of Pennsylvania, Clean Water Fund and forwarded to Compliance Specialist, Clean Water, Department of Environmental Protection, 400 Waterfront Drive, Pittsburgh, PA 15222.

e. Any payment under this paragraph shall neither waive FRS' duty to meet its obligations under this Consent Order and Agreement nor preclude the Department from commencing an action to compel FRS' compliance with the terms and conditions of this Consent Order and Agreement. The payment resolves only Respondents' liability for civil penalties arising from the violations of this Consent Order and Agreement for which the payment is made.

f. Stipulated civil penalties shall be due automatically and without notice.

24. Additional Remedies.

a. In the event FRS fails to comply with any provision of this Consent Order and Agreement, the Department may, in addition to the remedies prescribed herein, pursue any remedy available for a violation of an order of the Department, including an action to enforce this Consent Order and Agreement.

b. The remedies provided by this paragraph and Paragraph 23 (Stipulated Civil Penalties) are cumulative and the exercise of one does not preclude the exercise of any other. The failure of the Department to pursue any remedy shall not be deemed to be a waiver of that remedy. The payment of a stipulated civil penalty, however, shall preclude any further assessment of civil penalties for the violation for which the stipulated penalty is paid.

25. Reservation of Rights. The Department reserves the right to require additional measures to achieve compliance with applicable law. FRS reserves the right to challenge any action which the Department may take to require those measures.

26. Liability of Operator. FRS shall be jointly and severally liable to comply with this Consent Order and Agreement and shall be jointly and severally liable for any violations of the Consent Order and Agreement, including those caused by, contributed to, or allowed by its officers, agents, employees, or contractors. FRS also shall be liable for any violation of this

Consent Order and Agreement caused by, contributed to, or allowed by its successors and assigns.

27. Transfer of Site.

a. The duties and obligations under this Consent Order and Agreement shall not be modified, diminished, terminated or otherwise altered by the transfer of any legal or equitable interest in the Facilities or any part thereof.

b. If FRS intends to transfer any legal or equitable interest in the Facilities which are affected by this Consent Order and Agreement, FRS shall serve a copy of this Consent Order and Agreement upon the prospective transferee of the legal and equitable interest at least thirty (30) days prior to the contemplated transfer and shall simultaneously inform the Southwest Regional Office of the Department of such intent.

28. Correspondence with Department. All correspondence with the Department concerning this Consent Order and Agreement shall be addressed to:

Compliance Specialist
Operations Section
Clean Water Program
Department of Environmental Protection
400 Waterfront Drive
Pittsburgh, PA 15222-4745
Phone: (412) 442-4064 and Facsimile: (412) 442-4267

with a copy to

Bruce M. Herschlag
Assistant Regional Counsel
Office of Chief Counsel
Department of Environmental Protection
400 Waterfront Drive
Pittsburgh, PA 15222-4745
Phone: (412) 442-4262 and Facsimile: (412) 442-4267

29. Correspondence with FRS. All correspondence with FRS concerning this

Consent Order and Agreement shall be addressed to:

President of Fluid Recovery Services
Attention: Paul Hart
P.O. Box 232
5035 U.S. Route 110 West
Creekside, PA 15732
Phone: (724) 349-8600 and Facsimile: (724) 349-8601

with a copy to:

Lawrence A. Demase, Esquire
Reed Smith, LLP
225 Fifth Avenue
Pittsburgh, PA 15222
Phone: (412) 288-4050 and Facsimile: (412) 288-3063

and

Kevin J. Garber, Esquire
Babst Calland Clements and Zomnir, P.C.
Two Gateway Center, 8th Floor
603 Stanwix Street
Pittsburgh, PA 15222
Phone: (412) 394-5404 and Facsimile: (412) 394-6576

FRS shall notify the Department whenever there is a change in the contact person's name, title, or address. Service of any notice or any legal process for any purpose under this Consent Order and Agreement, including its enforcement, may be made by mailing a copy by first class mail to the above address of the principal contact.

30. Force Majeure.

a. In the event that FRS is prevented from complying in a timely manner with any time limit imposed in this Consent Order and Agreement solely because of a strike, fire, flood, act of God, or other circumstance beyond FRS' control and which FRS, by the exercise of all reasonable diligence, are unable to prevent, then FRS may petition the Department for an

extension of time. An increase in the cost of performing the obligations set forth in this Consent Order and Agreement shall not constitute circumstances beyond FRS' control. FRS' economic inability to comply with any of the obligations of this Consent Order and Agreement shall not be grounds for any extension of time.

b. FRS shall only be entitled to the benefits of this paragraph if it notifies the Department within five (5) working days by telephone and within ten (10) working days in writing of the date it becomes aware or reasonably should have become aware of the event impeding performance. The written submission shall include all necessary documentation, as well as a notarized affidavit from an authorized individual specifying the reasons for the delay, the expected duration of the delay, and the efforts which have been made and are being made by FRS to mitigate the effects of the event and to minimize the length of the delay. The initial written submission may be supplemented within ten working days of its submission. FRS' failure to comply with the requirements of this paragraph specifically and in a timely fashion shall render this paragraph null and of no effect as to the particular incident involved.

c. The Department will decide whether to grant all or part of the extension requested on the basis of all documentation submitted by FRS and other information available to the Department. In any subsequent litigation, the FRS shall have the burden of proving that the Department's refusal to grant the requested extension was an abuse of discretion based upon the information then available to it.

31. Severability. The paragraphs of this Consent Order and Agreement shall be severable and should any part hereof be declared invalid or unenforceable, the remainder shall continue in full force and effect between the parties.

32. Entire Agreement. This Consent Order and Agreement shall constitute the entire integrated agreement of the parties. No prior or contemporaneous communications or prior drafts shall be relevant or admissible for purposes of determining the meaning or extent of any provisions herein in any litigation or any other proceeding.

33. Attorney Fees. The parties shall bear their respective attorney fees, expenses and other costs in the prosecution or defense of this matter or any related matters, arising prior to execution of this Consent Order and Agreement.

34. Modifications. No changes, additions, modifications, or amendments of this Consent Order and Agreement shall be effective unless they are set out in writing and signed by the parties hereto.

35. Titles. A title used at the beginning of any paragraph of this Consent Order and Agreement may be used to aid in the construction of that paragraph, but shall not be treated as controlling.

36. Decisions Under Consent Order. Any decision which the Department makes under the provisions of this Consent Order and Agreement, including a notice that stipulated civil penalties are due, is intended to be neither a final action under 25 Pa. Code § 1021.2, nor an adjudication under 2 Pa. C.S. § 101. Any objection which FRS may have to the decision will be preserved until the Department enforces this Consent Order and Agreement.

37. Dispute Resolution.

a. FRS may initiate dispute resolution under this paragraph, in response to any request for reimbursement under Paragraph 17.c and 19.f, and disputes arising under Paragraphs 16.a, 16.b, 17.a.vi, 17.b.vi, 18.b, 19.d, 19.e, 19.f, 19.g, 20.b and 23.a through 23.e.

b. To initiate dispute resolution, FRS shall provide written notice to the Department within ten (10) days of the decision in dispute. FRS shall have an additional ten days to provide the Department with a written list of objections to the decision in dispute, the relevant facts, analysis and opinions and other supporting data ("Statement of Position"). The Department shall have twenty (20) days to provide its Statement of Position.

c. Within the twenty (20) day period following receipt of the Department's Statement of Position, the Manager from the appropriate Department program and FRS's President shall confer in an attempt to resolve the dispute. In the event the parties are unable to resolve the dispute within this period, the Statements of Position shall be provided to the Department's Southwest Regional/Director to issue a final decision resolving the dispute.

d. During the pendency of the dispute resolution procedures set forth in Subparagraphs (b) and (c), any obligation to be performed under this Consent Order and Agreement which is the subject of such dispute and any associated activities whose performance is directly dependent upon the resolution of the dispute shall be postponed for a period of time not to exceed the actual time taken to resolve the dispute pursuant to Subparagraphs (b) and (c) or as otherwise agreed by the parties. All other obligations and activities shall be completed in accordance with the terms of this Consent Order and Agreement.


e. Any time period for dispute resolution set forth herein may be extended by written agreement of the parties.

38. Termination. The obligations of this Consent Order and Agreement shall terminate if there are no outstanding stipulated penalties due and on the earlier event of (i) when the Department determines that FRS has complied with the requirements of Paragraphs 3 through 20 or (ii) December 31, 2019.

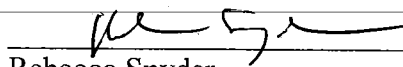
39. Execution of Agreement. This Consent Order and Agreement may be signed in counterparts, each of which shall be deemed to be an original and all of which together shall constitute one and the same instrument. Facsimile signatures shall be valid and effective.

IN WITNESS WHEREOF, the parties hereto have caused this Consent Order and Agreement to be executed by their duly authorized representatives. The undersigned representatives of FRS certify under penalty of law, as provided by 18 Pa. C.S. § 4904, that they are authorized to execute this Consent Order and Agreement on behalf of FRS; that FRS consents to the entry of this Consent Order and Agreement as a final ORDER of the Department; and that FRS hereby knowingly waives its right to appeal this Consent Order and Agreement and to challenge its content or validity, which rights may be available under Section 4 of the Environmental Hearing Board Act, Act of July 13, 1988, P.L. 530, 35 P.S. § 7514; the Administrative Agency Law, 2 Pa. C.S. § 103(a) and Chapters 5A and 7A; or any other provisions of law. Signature by attorneys for FRS certifies only that the agreement has been signed by FRS after consulting with counsel.

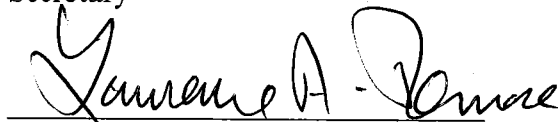
**FOR FLUID RECOVERY
SERVICES, LLC:**



Paul Hart
President

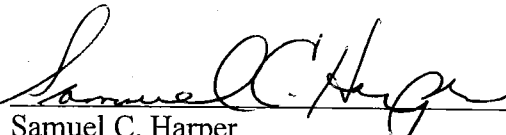


Rebecca Snyder
Secretary

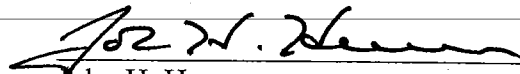


Lawrence A. Demase
Attorney for Fluid Recovery
Services, LLC

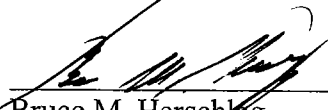
**FOR THE COMMONWEALTH OF
PENNSYLVANIA, DEPARTMENT OF
ENVIRONMENTAL PROTECTION:**



Samuel C. Harper
Southwest Regional Clean Water Manager



John H. Herman
Assistant Regional Counsel



Bruce M. Herschlag
Assistant Regional Counsel

EXHIBIT A – RADIOLOGICAL ASSESSMENT OF BLACKCLICK CREEK SITE

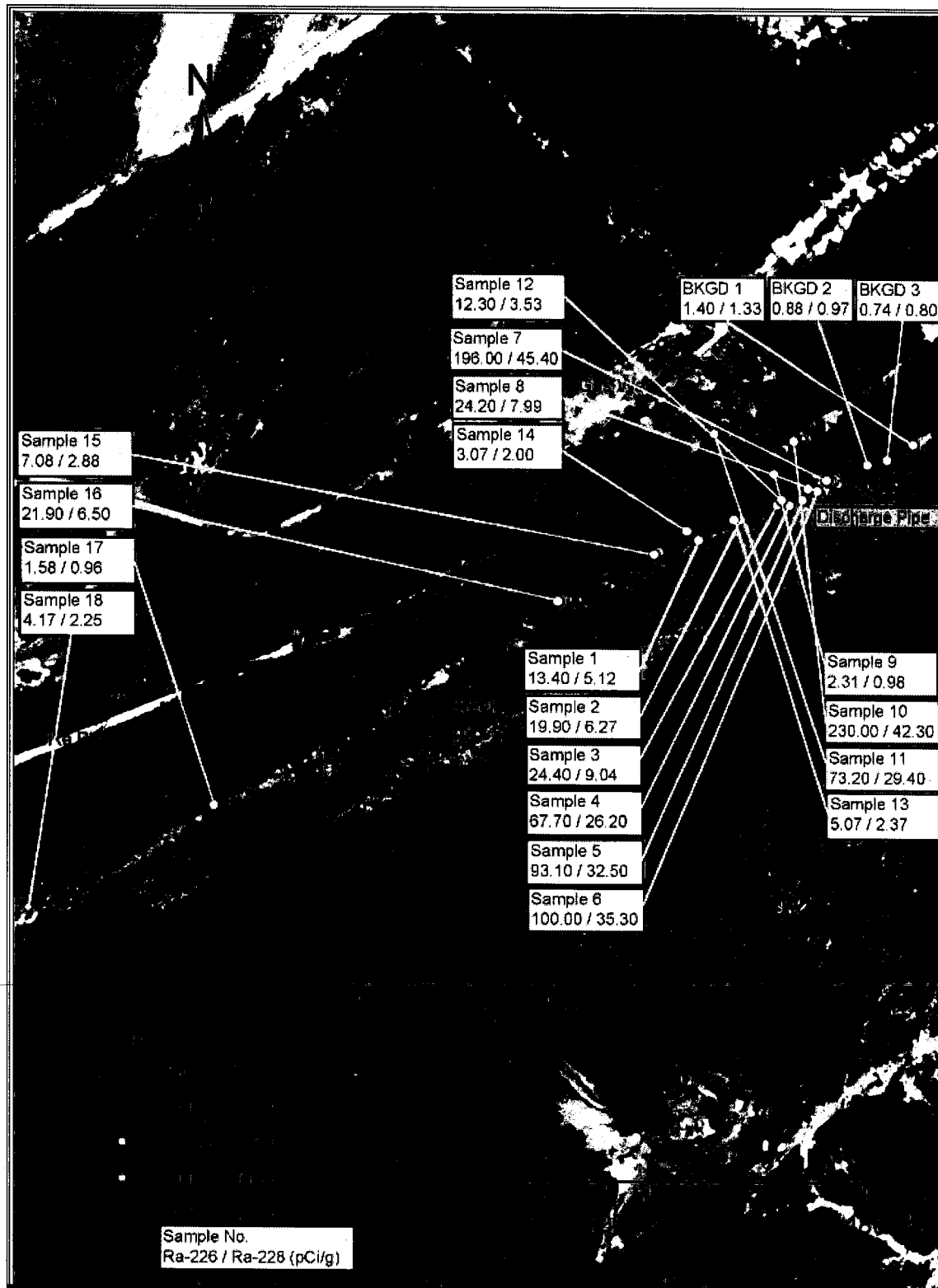


EXHIBIT B – RADIOLOGICAL ASSESSMENT OF FRANKLIN SITE

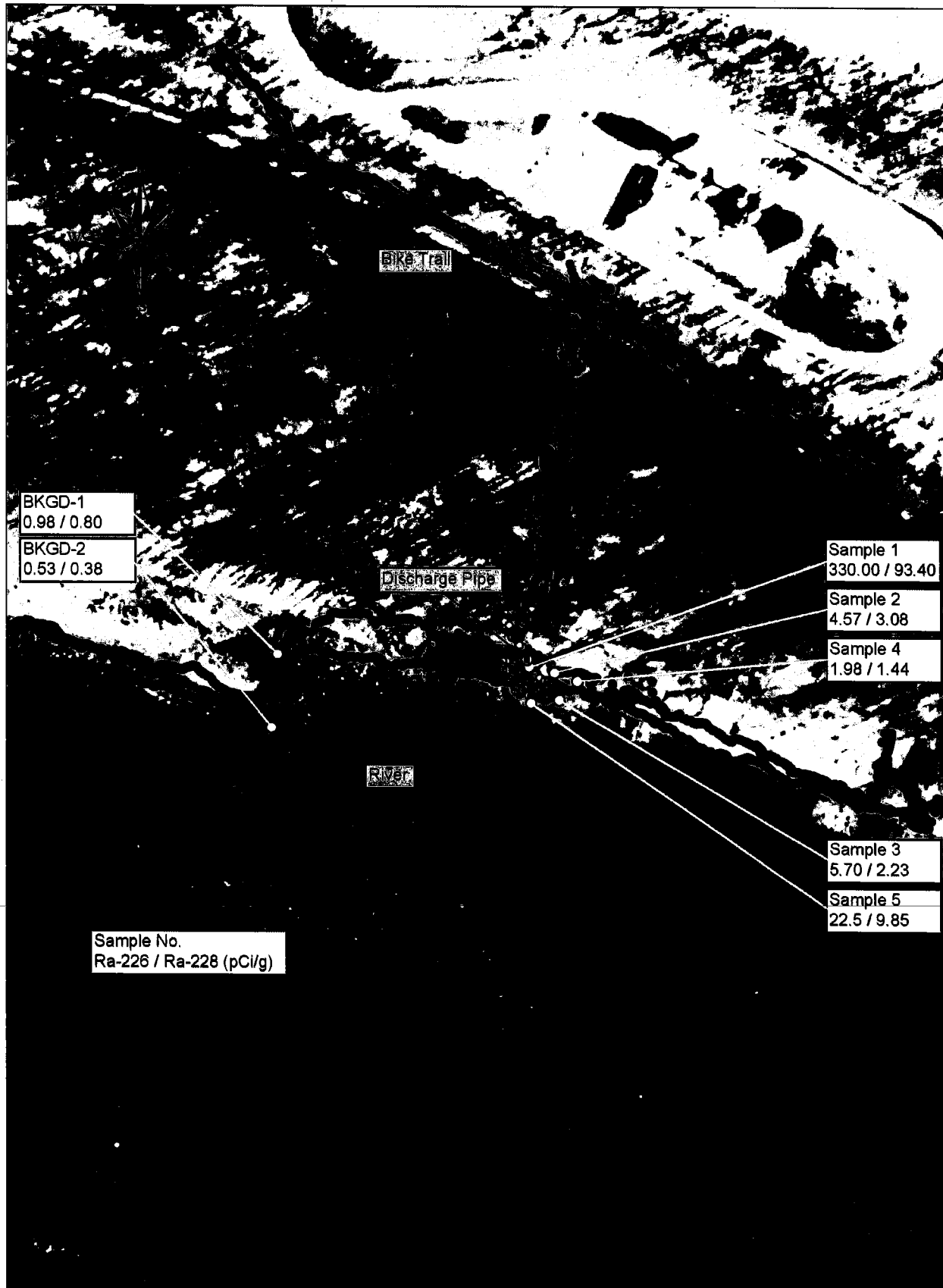


EXHIBIT C-1

INTERIM MEASURES INSTALLED AT JOSEPHINE FACILITY

Completed Upgrades

1. Segregation of Oriskany fluids as per Standard Operating Procedure.
 2. Meter Oriskany fluids proportional to feed flow.
 3. Sodium sulfate solution temperature control installation.
 4. Sodium sulfate preparation of fixed percentage of solution as per Standard Operating Procedure.
 5. Polymer dilution water improvement – installation of water filter unit.
 6. Polymer solution percentage increase by use of a Polymer Calculation Worksheet.
 7. Polymer solution aging loop length increased.
 8. Polymer solution proportional metering as per Polymer Calculation Worksheet.
 9. Installed 100 micron filter at the end of discharge pipe.
-
10. Installed permanent 4 bag filter unit utilizing at least 100 micron filters at the clarifier outlet.
 11. Sodium sulfate proportional addition to feed flow by use of salt analysis of incoming fluids.
 12. Installed floating discharge unit in treated effluent tank.
 13. Resizing of barium reactor vessel to provide increased retention time.

EXHIBIT C-2

INTERIM MEASURES PROPOSED AT JOSEPHINE FACILITY

Proposed Upgrades

Date of Upgrade

- | | |
|---|--|
| 1. Install baffling in treated effluent storage tank. | 1. 30 days after WQM Part II Permit is issued. |
|---|--|
-

EXHIBIT C-3

INTERIM MEASURES TO BE COMPLETED AT FRANKLIN FACILITY

1. Sodium sulfate preparation of fixed percentage of solution as per Standard Operating Procedure.
 2. Sodium sulfate proportional addition to feed flow.
 3. Polymer solution percentage increase by use of a Polymer Calculation Worksheet.
 4. Polymer solution aging loop length increased.
 5. Permanent 7 bag filter unit utilizing at least 100 micron filters at the clarifier outlet.
-

EXHIBIT C-4

INTERIM MEASURES FOR CREEKSIDE FACILITY

1. Permanent bag filter unit utilizing at least a 100 micron filter at the clarifier discharge.
-

Exhibit D

Fluid Recovery Services, LLC

Re: Issuance of NPDES Permit XXXX for YYY Facility

Dear [President of FRS]:

This letter serves to advise you and your customers that the YYY facility or a portion of it operating in accordance with [issued NPDES Permit No. XXXX], other necessary authorizations and after completion of new technology required by the WQM Permit for this facility may accept and process wastewater from both unconventional and conventional oil and gas wells for discharge into the _____, a water of the Commonwealth.

By way of background, on April 19, 2011, the Department ("DEP") called on all Marcellus well operators to cease disposal of Marcellus shale gas wastewater at publically owned treatment works ("POTW") and industrial waste treatment facilities that were exempt from the total dissolved solids ("TDS") treatment requirements in 25 Pa. Code Chapter 95. Subsequently, on July 11, 2011, DEP requested Marcellus shale operators to certify that they were not delivering or authorizing the delivery of flowback water and produced water from Marcellus shale gas extraction to facilities that had accepted it under the special provision of the TDS regulations that exempt facilities from the TDS requirements. On August 2, 2011, DEP sought to clarify its July 11, 2011 letter and requested Marcellus shale operators to certify that they were not delivering or authorizing the delivery of flowback water and produced water from Marcellus shale gas extraction to facilities that may accept, treat, and indirectly or directly discharge that waste to waters of the Commonwealth under TDS regulations that exempted these facilities from the TDS treatment requirements, and attached a list of such facilities, including the YYY facility located in _____, PA.

The certification, noted above, that DEP requested operators to sign does not apply to the processing of wastewater from shale gas extraction for processing and discharge to the waters of the Commonwealth at waste treatment facilities such as the YYY facility which has been permitted for new and expanded mass loadings of TDS in accordance with 25 Pa. Code § 95.10.

As stated above, the certification the Department requested operators sign does not apply to wastewater delivered to NPDES permitted facilities subject to the provisions of 25 Pa. Code § 95.10, now including the YYY facility, and gas producers may now deliver or authorize delivery, without concern of their prior certification, wastewater generated from unconventional oil and gas exploration and production facilities, including Marcellus, Utica and other shale operations to the YYY facility for processing and discharge of wastewater into _____, a water of the Commonwealth. The processing and discharge of wastewater conducted by FRS must be conducted in accordance with issued NPDES Permit No. XXXX and all other necessary authorizations.

Please call [insert telephone #] or email [insert email address] the undersigned if you or the concerned gas producers have any further questions regarding ability to utilize the NPDES

Permitted facilities at the YYY facility.

Sincerely,

Pennsylvania Department of Environmental Protection, Office of Oil and Gas Management

Exhibit E

Fluid Recovery Services, LLC

Re: Issuance of WMGR 123 Permit XXXX for YYY Facility

Dear [President of FRS]:

This letter serves to advise you and your customers that the YYY facility or a portion of it operating in accordance with [issued WMGR 123 Permit No. XXXX] and all other necessary authorizations may now accept and process wastewater from both unconventional and conventional oil and gas wells for beneficial reuse.

By way of background, on April 19, 2011, the Department ("DEP") called on all Marcellus well operators to cease disposal of Marcellus shale gas wastewater at publically owned treatment works ("POTW") and industrial waste treatment facilities that were exempt from the total dissolved solids ("TDS") treatment requirements in 25 Pa. Code Chapter 95. Subsequently, on July 11, 2011, DEP requested Marcellus shale operators to certify that they were not delivering or authorizing the delivery of flowback water and produced water from Marcellus shale gas extraction to facilities that had accepted it under the special provision of the TDS regulations that exempt facilities from the TDS requirements. On August 2, 2011, DEP sought to clarify its July 11, 2011 letter and requested Marcellus shale operators to certify that they were not delivering or authorizing the delivery of flowback water and produced water from Marcellus shale gas extraction to facilities that may accept, treat, and indirectly or directly discharge that waste to waters of the Commonwealth under TDS regulations that exempted these facilities from the TDS treatment requirements, and attached a list of such facilities, including the YYY facility located in _____, PA.

The certification, noted above, that DEP requested operators to sign did not apply to the processing of flowback water and produced water from shale gas extraction for beneficial use of such processed wastewater, so long as those activities do not result in a direct or indirect discharge of waters of the Commonwealth at a facility that is exempt from the TDS requirements.

As stated above, the certification the Department requested operators sign does not apply to wastewater delivered to WMGR-123 permitted facilities including the YYY facility, and gas producers may now deliver or authorize delivery, without concern of their prior certification, wastewater generated from unconventional oil and gas exploration and production facilities, including Marcellus, Utica and other shale operations to the YYY facility for beneficial reuse. These deliveries must be in accordance with [WMGR-123 Permit No. XXXX] and other necessary authorizations. This permit does not authorize a discharge into any water of the Commonwealth.

Please call [insert telephone #] or email [insert email address] the undersigned if you or a concerned gas producer has any further questions regarding the utilization of WMGR 123 facilities at the YYY facility.

Sincerely,

Pennsylvania Department of Environmental Protection, Office of Oil and Gas Management

Exhibit F

Fluid Recovery Services, LLC

Re: Final Status Survey

Dear [President of FRS]:

Based upon the final status survey sampling and measurements performed on behalf of Fluid Recovery Services, LLC which have been provided to the Department, and upon the confirmation sampling and measurements performed by the Department, the Department has concluded that the remediation of contamination in XXXXX Creek/River/Run resulting from discharges at the YYYYYY Facility is complete, meets a combined radium 226 / radium 228 standard of 5 pCi/g above background levels, and XXXXXX Creek/River/Run in the formerly contaminated areas is suitable for unrestricted use.

Sincerely,

Pennsylvania Department of Environmental Protection, Bureau of Radiation Protection
